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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/549,753	09/21/2005	Sumie Suda	278290US0XPCT	1304
22850	7590	04/14/2008		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
FOGARTY, CAITLIN ANNE				
ART UNIT		PAPER NUMBER		
1793				
NOTIFICATION DATE		DELIVERY MODE		
04/14/2008		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

# Office Action Summary

**Application No.**

10/549,753

**Applicant(s)**

SUDA ET AL.

**Examiner**

CAITLIN FOGARTY

**Art Unit**

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date 2/11/2008
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Status of Claims***

1. Claims 1 – 6 are presented for this examination where claim 1 has been amended.

***Information Disclosure Statement***

2. The information disclosure statement (IDS) was submitted on February 11, 2008. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner. Please refer to applicants' copy of form PTO-1449 submitted herewith.

***Status of Previous Rejections***

3. The following rejections are maintained:
  - Claims 1 – 6 under 35 U.S.C. 103(a) as being unpatentable over Hashimura et al. (US 6,338,763 B1).
  - Claims 1 and 2 provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 – 4 of copending Application No. 10/550,019.

***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 1 – 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimura et al. (US 6,338,763 B1).

Hashimura et al. is applied to claims 1 – 6 as set forth in the October 26, 2007 Office action.

In regards to the amended instant claim 1, the limitation that the ratio ( $\sigma_{0.2}/\sigma_B$ ) of 0.2% proof stress ( $\sigma_{0.2}$ ) to tensile strength ( $\sigma_B$ ) is 0.81 or lower overlaps with the ratio ( $\sigma_{0.2}/\sigma_B$ ) of not less than 0.8 disclosed by Hashimura et al. (col. 4 lines 1-14). See MPEP 2144.05.

### ***Response to Arguments***

6. Applicant's arguments filed January 28, 2008 have been fully considered but they are not persuasive.

Arguments are summarized as follows:

- a. Hashimura et al. does not disclose in a single embodiment, a steel wire that satisfies the compositional formula of claim 1 and also possesses a ratio ( $\sigma_{0.2}/\sigma_B$ ) of 0.81 or lower.
- b. Hashimura et al. generally teaches away from employing steel wires having a ratio ( $\sigma_{0.2}/\sigma_B$ ) of 0.81 or lower.
- c. Hashimura et al.'s disclosure of controlling austenite content would not have led a skilled artisan to the prior austenite grain size recited in claim 1.
- d. Hashimura et al. fails to recognize the composition and structure of the steel wire of claim 1, or the benefits stemming therefrom.
- e. Claims 2-6 depend from claim 1 and, thus, also would not have been rendered obvious by Hashimura.

Examiner's responses are as follows:

a. – b. The scope of Hashimura et al. is not limited to the specific embodiments it teaches (see *In re Fracalossi* 215 USPQ 569 (CCPA 1982)). Hashimura et al. teaches that the ratio ( $\sigma_{0.2}/\sigma_B$ ) of 0.2% proof stress ( $\sigma_{0.2}$ ) to tensile strength ( $\sigma_B$ ) is not less than 0.8 (col. 4 lines 1-14) which overlaps with the ratio of 0.81 or lower recited in instant claim 1 (see the 35 U.S.C. 103(a) rejection above).

c. Firstly, applicants have not disclosed the relationship between the austenite content of 6% or less to curb formation of working-induced martensite to enhance workability disclosed in Hashimura et al. and the prior austenite grain size number of 11.0 or larger recited in instant claim 1. Therefore, there is no support for applicants' assertion that Hashimura et al.'s disclosure of controlling austenite content would not have led a skilled artisan to the prior austenite grain size recited in instant claim 1. Furthermore, it would have been obvious to one of ordinary skill in the art that the grain size can be controlled by heat treatment during the process of making the steel wire and the optimum grain size number can be determined by routine experimentation.

d. Hashimura et al. is not required to recognize the benefits stemming from the composition and structure of the steel wire. See MPEP 2144 IV. Also, see the 35 U.S.C. 103(a) rejection from the October 26, 2007 Office action.

e. Claims 2 – 6 are obvious in view of Hashimura et al. as discussed in the rejection above and in the October 26, 2007 Office action.

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **CAITLIN FOGARTY** whose telephone number is (571)270-3589. The examiner can normally be reached on **Monday - Friday 8:00 AM - 5:30 PM EST**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1793

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/  
Supervisory Patent Examiner, Art  
Unit 1793

CF